Safe Drinking Water

2014 Water Quality Report – Columbia County Water Utility

This report includes information collected from January 1, 2014, through December 31, 2014.

The Safety of Our Drinking Water

Insuring the safety of the water supply is the most important thing we concentrate on here at the Columbia County Water Utility. After cleaning and treating the water through several techniques and then testing the water over 80,000 times this past year, we are proud to announce to our customers that we have met or exceeded all standards set forth by the EPA (Environmental Protection Agency) and the Georgia EPD (Environmental Protection Division). This annual report is written to give you, our valued customer, an idea of the quality of the drinking water we are working hard to provide. Topics covered in this report include source water information, numerical values of detected finished water quality parameters, term definitions, and health facts.

Health Facts

For health reasons, the EPA has prescribed regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Lead in Drinking Water

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Columbia County Water Utility is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

Our Drinking Water Sources

Columbia County currently withdraws up to 45,000,000 gallons a day of surface water from the Savannah River to the Jim Blanchard Sr. Water Treatment Facility on Point Comfort Road. An additional 8,000,000 gallons of surface water could be withdrawn from the Clarks Hill Reservoir and treated at the Clarks Hill Water Treatment Facility on Highway 221. Combined, the Water Utility is able to treat up to 53,000,000 gallons a day to help meet the needs of our customers.

Contaminants that may be present in source water include the following:

- Microbial contaminants (e.g., viruses and bacteria) that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wild-life;
- Inorganic contaminants (e.g., salts and metals) which can be naturally occurring or result from urban storm run-off, industrial or domestic waste discharges, oil and gas production, mining, or farming;
- Pesticides and herbicides which may come from a variety of sources such as agriculture, urban stormwater run-off, and residential uses;
- Organic chemical contaminants including synthetic and volatile organic chemicals which are by-products of industrial processes, petroleum production and can also come from gas stations, urban stormwater run-off, and septic systems;
- Radioactive contaminants which can be naturally occurring or be the result of oil and gas production and mining activities.

Water Sources

The sources of drinking water (both tap and bottled) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material and can pick up substances resulting from the presence of animals or from human activity.

Source Water Assessment

Columbia County Water Utility completed a Source Water Assessment study in April 2002. This assessment identifies potential pollutant sources that could contaminate the water supply. In the ranking of High, Medium, and Low for potential pollutants, our water supply was ranked Low at both the Jim Blanchard Water Treatment Plant and the Clarks Hill Water Treatment Plant. This assessment is available to the public. If you would like to review or purchase a copy, please call (706) 863-6928 during normal business hours.

Columbia County Water Utility (CCWU) Quality Data for 2014

Regulated Inorganic Substances Detected in Treated Water Entering Distribution System

Substance (Units)	Maximum Level Allowed (MCL)	Maximum Level Goal (MCLG)	Average Detected in CCWU	Range Detected in CCWU	Sample Date	Did CCWU Meet Requirements	Major Sources and Health Effects in Drinking Water
Fluoride (ppm)	4	4	0.98	0.89 - 1.07	2014	Yes	Water additive which promotes strong teeth.
Nitrate (ppm)	10	10	Not Detected	n/a	2014	Yes	Runoff from fertilizer use; septic tank leachate.
Turbidity (ntu)	TT	n/a	**Maximum Detected** = 0.28	n/a	2014	Yes	Soil runoff and erosion of riverbanks and shoreline.
Turbidity (percent)	TT=percentage of samples < 0.3ntu	n/a	**Percent Below 0.3ntu** 100%	n/a	2014	Yes	Soil runoff and erosion of riverbanks and shoreline.

Regulated Inorganic Substances Detected in Treated Water at Tap

Substance (Units)	# of sites tested	Action Level Allowed (AL)	Maximum Level Goal (MCLG)	90th Percentile in CCWU	Number of sites above AL	Previous Sample Date	Did CCWU Meet Requirements	Major Sources and Health Effects in Drinking Water
Copper (ppm)	30	1.3	1.3	0.081	0	2014	Yes	Corrosion of household plumbing; Erosion of natural deposits; Leaching from wood preservative. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.
Lead (ppb)	30	15	0	5.6	1	2014	Yes	

Regulated Organic Substances Detected in Treated Water at Tap

Substance (Units)	Max Yearly Average Allowed (MCL)	Maximum Level Goal (MCLG)	Max Yearly Site Average Detected in CCWU	Annual Range Detected in CCWU	Sample Date	Did CCWU Meet Requirements	
Total Trihalomethanes (ppb)	80	n/a	78.8	24.7 - 77.6	2014	Yes	By-product of drinking water disinfection by chlorination.
Total Haloacetic Acids (ppb)	60	n/a	47.8	11.9 - 46	2014	Yes	By-product of drinking water disinfection by chlorination.
Substance (Units)	**Maximum Residual Level Allowed (MRDL)**	**Maximum Level Goal (MRDLG)**	**Yearly Average Detected in CCWU**	**Range Detected in CCWU**	**Sample Date**	**Did CCWU Meet Requirements**	
Chlorine (ppm)	4	4	1.1	0.0 - 1.9	2014	Yes	Water additive used to control microbes.
Total Organic Carbon (ppm)	TT	n/a	1.6	1.1 - 1.9	2014	Yes	Naturally present in the environment.

Regulated Bacteriological Sampling

Substance (Units)	Number of Required Samples Collected Per Month	Maximum Level Allowed (MCL)	Number of Violations	Highest Monthly Percent	Sample Date	Did CCWU Meet Requirements	
Total Coliforms (P/A)	100	5.00%	0	1%	2014	Yes	Coliform bacteria, including E-coli, are naturally present in the environment. Fecal Coliform and E-coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special risk for infants, young children, some elderly, and people with compromised immune systems.
E-Coli (P/A)	100	MCLG = 0	0	0	2014	Yes	

For Your Information

Substance	Normal Range Detected in CCWU
Sodium	8.7 ppm - 11.0 ppm
Alkalinity	11 ppm - 20 ppm on average
Hardness	1 - 35 ppm on average (Very Soft)
pH	6.5 - 8.5
Iron	< 0.3 mg/L on average

Definitions

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL): Maximum disinfectant residual allowed in the distribution system.

Not Detected (nd): The amount of a material in a sample that was not detected during analytical testing.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Parts per Billion (ppb): One part per billion is equivalent to one penny in 10 million dollars.

Parts per Million (ppm): One part per million is equivalent to one penny in ten thousand dollars..... (1 ppm = 1 mg/L)

Violation: Failure to comply with any drinking water regulation.

Columbia County Water Utility monitors for unregulated parameters in order to assist the EPA in determining where certain contaminants occur and whether additional regulations may be necessary.

Below is a list of the Unregulated Contaminants that were detected in the Columbia County drinking water in 2013.

Parameter	MCL	MCLG	CCWU - Ranges	CCWU - Average	Sample Date	Violation
Hexavalent Chromium (ug/L)	Not Regulated	Not Regulated	0.0 - 0.57	0.124	2013	MCL determination
Chlorate (ug/L)	Not Regulated	Not Regulated	49 - 210	104.562	2013	is currently pending
Chromium (ug/L)	Not Regulated	Not Regulated	0 - 0.32	0.038	2013	
Strontium (ug/L)	Not Regulated	Not Regulated	24 - 32	28.5	2013	
Vanadium (ug/L)	Not Regulated	Not Regulated	0 - 0.64	0.291	2013	

This report contains important information about our drinking water. To translate it, or to speak with someone who understands it please call 706-863-6928.

Spanish: Este informe contiene información importante acerca de nuestra agua potable. Para traducirlo, o para hablar con alguien que entiende que por favor llame al 706-863-6928.

Please Call

For more information about the CCWU (ID # 0730000), please contact the Water Laboratory Manager Rodney Silvey at (706) 868-3460 or the Treatment Operations Manager John Maldonado at (706) 860-2587. The Public Works Committee meets the 2nd Tuesday of the month at 8:30 AM. The meetings will be held at the Government Center Auditorium in Building A at 630 Ronald Reagan Dr. Evans, GA

Columbia County is currently involved in a study of our source waters testing for Cryptosporidium.

Cryptosporidium is a parasite that can cause intestinal disease.

People with weakened immune systems may develop serious, chronic, and sometimes fatal illness.

Current testing results of the county's source waters have been negative for cryptosporidium.

Columbia County will continue testing the source waters monthly until the study ends in August 2015.